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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,439

06/22/2006

Rainer Angenendt

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K.F. ROSS P.C.

5683 RIVERDALE AVENUE

SUITE 203 BOX 900

BRONX, NY 10471-0900

EXAMINER

LOEWE, ROBERT S

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

01/19/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

EMAIL@KFRPC.COM

ereyes@kfrpc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,439	<b>Applicant(s)</b> ANGENENDT, RAINER	
	<b>Examiner</b> ROBERT LOEWE	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15, 18-22 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) 24-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15 and 18-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### ***Election/Restriction***

Applicant's amendments, filed on 12/3/09, have been fully considered. Upon further consideration of Dietlein et al. reference (US Pat. 4,719,251) (which was used to reject all previous claims with the exception of now canceled claim 23 (the limitations of which are incorporated into claim 15). However, upon further consideration of Dietlein et al. it has been determined that Dietlein et al. may still be relied upon to reject Applicants instant claims. The Examiner apologizes for the earlier indication of potential allowable subject matter made in the previous rejection.

Applicants request for rejoinder of claims 24-30 is noted but will be held in abeyance in light of the fact that Dietlein et al. can still be relied upon as a prior art reference for elected claims 15 and 18-22. This Office action is non-final.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15, 18, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Dietlein et al. (US Pat. 4,719,251) and Huebner et al. (US Pat. 4,568,718), as evidenced by Michalski (US Pat. 3,639,260) and Smith et al. (US 2004/0192788).

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Dietlein et al. teaches a trowelable silicone water base fire barrier composition (that is to say, it is freely shapeable), which cures upon drying at ambient temperature to an elastomeric film (2:15-16), which given its end use as a trowelable composition would be used and cured in normal pressure environments. The compositions are taught to include a silicone resin emulsion which serves as a binder, water, hollow glass spheres having an average particle diameter of from 20 to 130 microns, and fibers (Sample 2 of Table 4). Regarding the silicone emulsion, Dietlein et al. teaches several useful emulsions which are known in the art which are applicable to the invention taught therein. One such emulsion useful as a silicone emulsion is taught to be found in patent application 624,545 to Huebner et al. (6:1-4). This teaching is incorporated by reference (6:5-6). Application 624,545, corresponds to US Pat. 4,568,718 to Huebner et al. Huebner et al. teaches silicone emulsions which consist of three main ingredients: (1) a polydiorganosiloxane which bears silanol functionality, (2) an alkoxysilane which serves to co-condense with ingredient (1) and (3) a surface active anionic catalyst (3:58) to which are added colloidal silica or colloidal silsesquioxane (3:59-62). Huebner et al. teaches that the catalyst acts as a surfactant (5:52). A surfactant is also known in the art as a wetting agent as evidenced by Smith et al. (paragraph 0003 of Smith et al.). Regarding the silica, Michalski teaches that silica is also known in the art as an anti-foaming agent (1:8-15) of Michalski. Therefore, the silicone resin emulsions as taught and exemplified by Huebner et al. consist of a polysiloxane condensate (which serves as a binder for the compositions taught by Dietlein et al.), an anionic catalyst which inherently serves as a wetting agent, and silica, which inherently serves as an anti-foaming agent. Example 1 of Huebner et al. shows that the amounts of silica sol and anionic catalyst inherently satisfy the amounts required by instant claim 1. Therefore, based on the teachings of

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Dietlein et al., employment of the silicone resin emulsions as taught by Huebner et al. (the teachings of which are incorporated by reference by Dietlein et al.) in the manner as shown in the Sample 2 of Dietlein et al. would result in a silicone resin emulsion, which cures to a trowelable composition, which would consist of 100 parts by weight of a silicone resin emulsion, which has a solids content between 40 and 60% as taught by Huebner et al. (8:38-40). Included in the silicone resin emulsion is the anionic catalyst (which inherently acts as a wetting agent), the silica (which inherently acts as an anti-foaming agent) in amounts which satisfy that required by the instant claims; the balance being water. To the silicone resin emulsion is added 13.2 parts of glass microspheres, which would satisfy the amount as required by instant claim 15. Last, the addition of quartz to the compositions is not required by Dietlein et al., but merely an optional ingredient (7:30-43).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dietlein et al. (US Pat. 4,719,251) as applied to claim 15 above, and further in view of Leroux et al. (US Pat. 5,262,454).

Dietlein et al. teaches the curable paste of instant claim 15, as described above. While Dietlein et al. does not explicitly teach that the hollow glass balloons employed in the working

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examples further include an inert gas, such a requirement to the hollow glass balloons is obvious given the teachings of Leroux et al. Dietlein et al. and Leroux et al. are combinable because they are from the same field of endeavor, namely silicone-based flame-resistant compositions comprising hollow glass balloons. At the time of the invention, a person having ordinary skill in the art would have found it obvious to employ glass microballoons as taught by Dietlein et al. which further comprises an inert gas as taught by Leroux et al. and would have been motivated to do so since Leroux et al. teaches that it is advantageous to employ glass balloons which are filled with a non-combustible gas/inert gas so that the gas filler does not in any way contribute to any possible burning (2:1-5).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dietlein et al. (US Pat. 4,719,251) as applied to claim 15 above, and further in view of Crompton et al. (4,879,066).

Dietlein et al. teaches the curable paste of instant claim 15, as described above. While Dietlein et al. does not explicitly teach that a mixture of hollow microspheres may be employed which have different melting points, this concept is known in the art as taught by Crompton et al. Dietlein et al. and Crompton et al. are combinable because they are from the same technical difficulty, namely, production of fire-resistant compositions. Crompton et al. teaches fire-resistant additives which are comprised of a mixture of two or more glass frits which have different melting temperatures. Crompton et al. teaches that employment of such a mixture of glass frits allows for the glass frits to melt progressively providing a fused protective layer (1:61-2:10). Since Dietlein et al. is concerned with fire barrier compositions, employment of a mixture

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of microballoons with different melt temperatures would be expected to yield fire barrier compositions which also display an enhanced fireproofing effect when compared with employing glass microballoon of a single type.

### ***Relevant Art Cited***

The prior art made of record and not relied upon but is considered pertinent to applicants disclosure can be found on the attached PTO-892 form.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT LOEWE whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 273-1302. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./

Examiner, Art Unit 1796

4-Jan-10

/RANDY GULAKOWSKI/

Supervisory Patent Examiner, Art Unit 1796